



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/780,798

02/18/2004

Floyd Backes

160-041

1518

34845

7590

05/05/2006

STEUBING MCGUINNESS & MANARAS LLP  
125 NAGOG PARK  
ACTON, MA 01720

EXAMINER

HOLLIDAY, JAIME MICHELE

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/780,798	<b>Applicant(s)</b> BACKES, FLOYD	
	<b>Examiner</b> Jaime M. Holliday	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

***Response to Arguments***

1. Applicant's arguments with respect to **claims 1-3** have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kallio (Pub # U.S. 2004/0014422 A1)** in view of **Eng (Pub # U.S. 2003/0035442 A1)**, and in further view of **Olds et al. (U.S. Patent # 5,574,968)**.

Consider **claim 1**, Kallio clearly shows and discloses a system for handovers implemented in a Bluetooth environment, which defines a short-range radio network, reading on the claimed "Dynamic Radio Control Protocol," (paragraphs 4 and 13). Kallio further discloses a system that enables terminal devices to efficiently transition from a first access point to a second access point based on service discovery information that is transmitted by the second access point. The current access point establishes a link with the terminal device; sends service description data to the terminal device; and authenticates the link with the second access point using a group key based on the service description data, reading on the claimed "Dynamic Radio Control Protocol for use by devices in a wireless communications environment wherein multiple channels are available for communication," (paragraphs 13 and 15), comprising:

a terminal device **402** enters a page scan state, where it awaits one or more paging messages. An access point **406** also enters a paging mode and transmits one or more paging packets. These paging packets each include an identification number based on the address of terminal device. Meanwhile, during this step, the terminal device, which is in page scan mode, responds to the paging packets by transmitting a packet that includes its address, reading on the claimed "exchange of Announce messages between devices, wherein some devices send Announce messages to indicate their presence and their protocol capability to other devices; exchange of Bid messages between devices, wherein a sending

device sends a Bid message to a receiving device to indicate that the sending device desires to communicate in the wireless communications environment via the receiving device,” (figures 8 and 10, paragraphs 134-135);

an access point receives this packet from terminal device. In response, access point transmits a frequency hop synchronization (FHS) packet. The FHS packet is used to pass information that allows terminal device to synchronize with the frequency hopping sequence of access point. Upon receipt of this FHS packet, terminal device transmits a further packet to confirm receipt of the FHS packet. Both terminal device and access point enter into the connection state at this point, reading on the claimed “exchange of Accept messages between devices, wherein a sending device sends an Accept message to a receiving device in response to a Bid message to indicate that the sending device will allow the receiving device to communicate in the wireless communications environment via the sending device,” (figures 8 and 10, paragraphs 134-135).

However, Kallio does not specifically disclose an exchange of messages prior to the packets sent during the page scan, which would read on the “Claim messages.”

In the same field of endeavor, Eng clearly shows and discloses a system for enabling full service communication between a full-service cable modem (fsCM) termination system and a plurality of full-service

cable modem, wherein full-service communications include data, voice and video. A multi-channel full-service media-access-control (fsMAC) coordinates the access to the shared upstream and downstream channels, reading on the claimed "devices in a wireless communications environment wherein multiple channels are available for communication," (abstract). Eng further discloses a message **700** being sent that identifies an upstream channel, reading on the claimed "exchange of Claim messages between devices, wherein each device uses the claim messages it sends and receives to select a channel on which to communicate," (paragraph 67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a message that identifies a channel as taught by Eng in the system of Kallio in order to make handovers more efficient (paragraph 14).

However, Kallio, as modified by Eng, does not specifically disclose that the paging packets are transmitted, because the terminal device has an indication that the access point is capable of providing better service.

In the same field of endeavor, Olds et al. clearly show and disclose handoff methods that perform cell-to-cell handoff between cells of the same satellite and between cells of different satellites. A handoff is initiated by an individual subscriber unit (ISU) based on local conditions. Once handoff is needed, the ISU chooses a candidate cell from a dynamic handoff candidate list of available candidate cells. The handoff candidate

list includes only cells that are suitable candidates for handoff. A handoff may be initiated by an ISU when it detects that one of the candidate cells is likely to offer a better quality of service than the current cell. Once the candidate cell is selected, the ISU transmits a handoff request to the satellite, reading on the claimed "decision to send a bid message is based at least in-part on an indication that the receiving device is capable of providing better service," (abstract, col. 2 lines 43-48, col. 9 lines 5-6, 38-45, col. 10 lines 18-20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to initiate a handoff when it is detected that a candidate cell will offer a better quality of service as taught by Olds et al. in the system of Kallio, as modified by Eng, in order to make handovers more efficient (paragraph 14).

4. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Kallio (Pub # U.S. 2004/0014422 A1)** and **Eng (Pub # U.S. 2003/0035442 A1)**, in view of **Olds et al. (U.S. Patent # 5,574,968)**, and in further view of **Idnani et al. (Pub # U.S. 2004/0121765 A1)**.

Consider **claim 2**, and as applied to **claim 1** above, Kallio, as modified by Eng, clearly shows and discloses the claimed invention except that a registration request message and its acknowledgement are transmitted.

In the same field of endeavor, Idnani et al. clearly show and disclose a Session Initiation Protocol (SIP) proxy user agent (UA) to serve as a gateway between a SIP core network and a SIP-unaware mobile. A new message is described, a combined registration and event subscription message, which is used by SIP proxy UAs to both register a new contact address for a mobile and to subscribe to the mobile's contact information. When mobile station (MS) **101** begins obtaining service from base station (BS) **111** it sends a registration request message to SIP component **120**. This registration request message **202** is not a SIP message, but rather a registration message in accordance with the wireless protocol utilized by MS. The registration request message is received by SIP proxy UA **123**, via the wireless network interface **121**. Acting as a proxy user agent for the mobile station, SIP proxy UA then sends a combined registration and event subscription message for MS **101** to SIP registrar/presence server **130**, reading on the claimed "access point." Proxy UAs are responsible for translating the call control messaging between SIP and the appropriate wireless protocol, reading on the claimed "exchange of registration request messages between devices, wherein a sending device sends a registration request message to a receiving device to indicate that the sending device desires to communicate in the wireless communications environment via the receiving device using the Dynamic Radio Control Protocol," (figures 1 and 2, paragraphs 8, 14-15);



In response to the message, SIP registrar sends SIP OK message to SIP proxy UA, reading on the claimed "exchange of registration acknowledge messages between wireless devices, wherein a sending device sends a Registration acknowledge message to a receiving device in response to a Registration Request message, to indicate that the sending device understands that the receiving device will communicate in the wireless communications environment using the Dynamic Radio Control Protocol," (figures 1 and 2, paragraph 30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to register, via a proxy, to a server as taught by Idnani et al. in the system of Kallio and Eng, as modified by Olds et al., in order to efficiently complete a transition or handover.

5. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Kallio (Pub # U.S. 2004/0014422 A1)** and **Eng (Pub # U.S. 2003/0035442 A1)**, in view of **Olds et al. (U.S. Patent # 5,574,968)**, and in further view of **Feder et al. (U.S. Patent # 6,522,881 B1)**.

Consider **claim 3**, and as applied to **claim 1** above, Kallio, as modified by Eng, clearly shows and discloses the claimed invention except that chooses the access point that will provide better wireless communications performance than the current access point.

In the same field of endeavor, Feder et al. clearly show and disclose a method and apparatus for use in a wireless communications network that searches for the best serving access point of a base station as a function of communication quality. Each base station **200** includes five access points (AP) that are assigned a different 1MHz channel, reading on the claimed "devices in a wireless communications environment wherein multiple channels are available for communication," (abstract, column 4 lines 6-11). A wireless modem **270** in a fixed wireless network executes an AP search/selection sequence in response to a triggering event, such as when service quality degrades below a threshold level. After detecting beacons and obtaining a communication link quality metric for each neighboring access point, the wireless modem selects the best access point based on the communication link quality metric, reading on the claimed "Bid message is sent by a sending device to a receiving device if the sending device ascertains that the receiving device is likely to provide better wireless communications performance than another device through which the sending device is currently communicating," (column 2 lines 59-63, column 3 lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select an access point with the best communication link quality as taught by Feder et al. in the system of Kallio and Eng, as modified by Olds et al., in order to efficiently complete a transition or handover.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

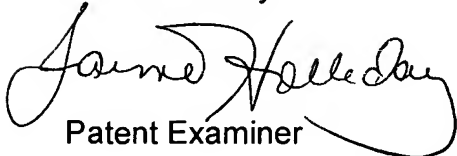
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax

Art Unit: 2617

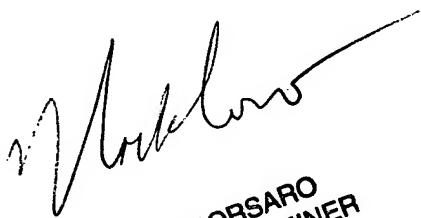
phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jaime Holliday



Patent Examiner



NICK CORSARO  
PRIMARY EXAMINER